

**WHAT IS CLAIMED IS:**

- 2           1.     A method of milling a material comprising:  
3                 providing a silicon nitride based cutting tool insert;  
4                 cutting at a cutting speed of 1000-3000 m/min; and  
5                 feeding at a feeding rate of 0.05-0.5 mm/tooth to a cutting depth of  
6     0.2-2 mm,  
7                 wherein the material comprises aluminum and cast iron.
- 1           2.     The method of claim 1, wherein the cutting tool insert has a chip  
2     thickness of 0.09-0.17 mm.